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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/810,952	03/26/2004	Michael David Pleskach	7162-0119	9829
39207	7590	06/16/2006	EXAMINER	
SACCO & ASSOCIATES, PA P.O. BOX 30999 PALM BEACH GARDENS, FL 33420-0999			MAI, ANH T	
			ART UNIT	PAPER NUMBER
			2832	

DATE MAILED: 06/16/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/810,952

Applicant(s)

PLESKACH ET AL.

Examiner

Anh T. Mai

Art Unit

2832

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 March 2006.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-26 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

33DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-2 are rejected under 35 U.S.C. 102(b) as being anticipated by Altman et al. [5055816].

Altman discloses:

- a ceramic substrate 14;
- a ceramic toroidal core embedded in the substrate;
- a conductive coil comprising a plurality of turns about said ceramic core;
- the plurality of turns a contained within the ceramic substrate at all points 154, 156, 158 [figures 5b ; col 4; lines 9-45].

With respect to limitation "in a co-firing process" has been considered but not given any patentable weight because this is product by process. During the examination, the patentability of a product-by-process claim is determined by the novelty and nonobviousness of the claimed product itself without consideration of the process for making it which is recited in the claim.

"Even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the

Art Unit: 2832

same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process."

In re Thorpe, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985).

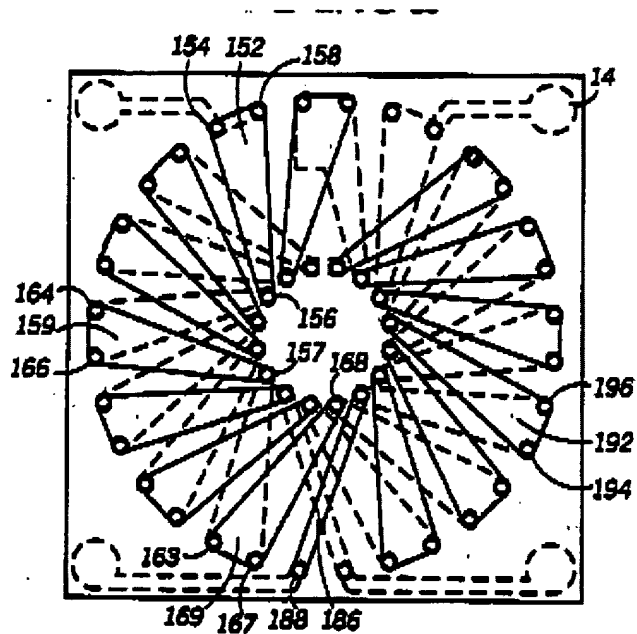
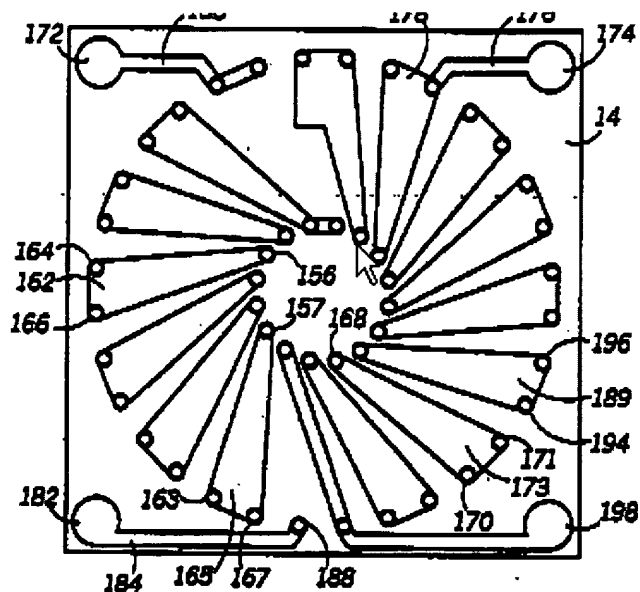


FIG. 5b



Art Unit: 2832

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 10-11, 18-20 are rejected under 35 U.S.C. 102(e) as being unpatentable over

Wahlers et al. [6914513].

Wahlers discloses a processing condition for manufacturing a magnetic coil comprising:

- Forming one conductive coil comprising plurality of turns [silver conductor forming of via filled silver conductor paste and top layer silver filled conductor paste to form planar coil buried in the ceramic tape] [col 4, lines 39-67];
- the core region and ceramic substrate [tape] are fired to form the conductor coil embedded therein [see column 4, lines 5-27; also see col 17, example 3].
- as of claims 20 and 11, the permeability of the core is greater than 1 [range of 20 to 50 as disclosed in abstract].

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 2832

6. Claims 3, 8-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Altman in view of Kitahara et al. [5029043].

Altman discloses the invention as claimed as cited above except for ceramic toroid core having permeability greater than 1. Kitahara discloses the ceramic substrate, which has magnetic permeability of more than 1 [column 2; lines 17-21]. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to have substrate having permeability of greater than 1 as taught by Kitahara to the core substrate of Altman. The motivation would have been to provide adequate magneticity to form inductance in the body [col 2, lns 42-44]. Therefore, it would have been obvious to combine Kitahara with Altman.

With respect to claim 8, the claim is intended use as an autotransformer.

7. Claims 4-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Altman in view of Gomez et al. [6847282].

Altman discloses the invention as claimed as cited above except for a metal ground plane disposed within the substrate. Gomez discloses a metal ground plane 516 disposed within substrate layer 534 [figure 6B]. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to a ground plane as taught by Gomez to the substrate of Altman. The motivation would have been to provide grounding connection for the device. Therefore, it would have been obvious to combine Gomez with Altman.

Conductive bottom shield pattern 516 is disposed on third surface 534. Surface 534 is adjacent to surface 532. Shield pattern 516 has a voltage potential, such as ground. Shield pattern 516 provides a shielding function that reduces unwanted electromagnetic interaction between inductor 500 and other electronic components (not shown).

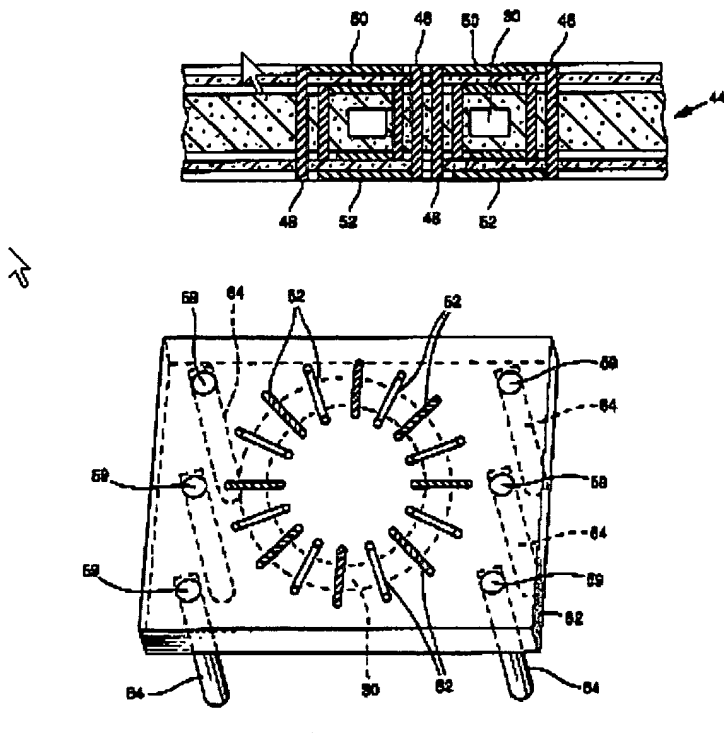
Art Unit: 2832

With respect to claim 5, Gomez discloses a metal ground planes 104a, 104b disposed on outer surface of substrate layer 201 [figures 1B, 2; co 1, lines 46-48].

Printed ground planes 104a and 104b provide shielding to spiral patterns 102a and 102b, respectively. These ground planes are connected by apertures known as vias, such as via 106, that penetrate the substrate. As shown in FIGS. 1A and 1B, vias 108 and 110 connect spirals 102a and 102b.

8. Claims 6-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Altman in view of Krone [6148500].

Altman discloses the invention as claimed as cited above except for the second winding on the toroid core. Krone discloses the windings 42, 50 having different radius [figure 25] on toroid core 30 to form a choke/transformer [col 5; lines 24-30]. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to have second winding with different radius as taught by Krone to Altman. The motivation would have been to provide part of the filter module. Therefore, it would have been obvious to combine Krone with Altman



9. Claim 12-13, 21-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wahlers in view of Gomez.

Wahlers discloses the invention as claimed as cited above except for a metal ground plane disposed between conductive coil and outer surface of the substrate. Gomez discloses a metal ground planes 104a, 104b disposed on outer surface of substrate layer 201 [figures 1B, 2; co 1, lines 46-48]. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to a ground plane as taught by Gomez to the substrate of Wahlers. The motivation would have been to provide grounding connection for the device. Therefore, it would have been obvious to combine Gomez with Wahlers.

Printed ground planes 104a and 104b provide shielding to spiral patterns 102a and 102b, respectively. These ground planes are connected by apertures known as vias, such as via 106, that penetrate the substrate. As shown in FIGS. 1A and 1B, vias 108 and 110 connect spirals 102a and 102b.

Art Unit: 2832

10. Claims 14-16, 23-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wahlers in view of Krone.

Wahlers discloses the invention as claimed as cited above except for the second winding on the toroid core. Krone discloses the windings 42, 50 having different radius [figure 25] on toroid core 30 to form a choke/transformer [col 5; lines 24-30]. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to have second winding with different radius as taught by Krone to the toroid as disclosed by Wahlers. The motivation would have been to provide part of the filter module. Therefore, it would have been obvious to combine Krone with Wahlers.

With respect to claims 23-25, Krone discloses second conductive traces 50 and vias 48 as shown in figure 15.

Claims 17, 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wahlers in view of Blumkin. Wahlers discloses the invention as claimed except for a tap along a length of conductive coil to form an autotransformer. Blumkin discloses external tabs 51', 52', 53' to tap into coil assembly at any desired point to provide a tapped coil/auto-transformer. It would have been obvious, therefore, at the time the invention was made to a person having skill in the art to construct the transformer as disclosed by Wahlers with tap along the length of conductive coil, as disclosed by Blumkin for the purpose of obtaining an auto-transformer [col 4, line 67 to col 5, line 2].

Response to Arguments

11. Applicant's arguments with respect to claims 1-26 have been considered but are moot in view of the new ground(s) of rejection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anh T. Mai whose telephone number is 571-272-1995. The examiner can normally be reached on 5/4/9 Schedule.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Elvin Enad can be reached on 571-272-1990. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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am

A handwritten signature in black ink, appearing to read 'Anh Mai', with a long, sweeping horizontal stroke extending to the right.

**ANH MAI
PRIMARY EXAMINER**